Rushing River Provincial Park

Background Information

Ontario

Ministry of Natural Resources

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Rushing River Provincial Park

Background Information

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1.0 INTRODUCTION

Rushing River Provincial Park was designated on September 25, 1958, under regulation 821/80 schedule 23, at a size of 190 hectares. The park takes its name from the river which flows through the day use area. This scenic section of the river flows over bedrock outcrops and boulders creating a picturesque length of rapids.

Planning was initiated for the park in order to resolve a number of issues affecting the future management of the park's resources (See section 8.0). The Park Management Plan for Rushing River Provincial Park will be a statement of policy for the future protection, development and management of the park in a way that is responsive to public interest and ensures the protection of the existing natural environment. The plan will define the park's role, significance and classification within the provincial park system and will also identify park policies and objectives. It will then provide guidance in the preparation of any natural resources, client services, site and development and operations plans that may be required to achieve park objectives. The plan will ensure that the planning, management and development of the park, its resources and attributes are compatible with the protection of the park environment. The management plan is intended

to provide guidance for the management of the park resources and operations for the next twenty years.

The background data contained in this report provides the necessary information required for sound decision-making in the preparation of the park management plan for Rushing River Provincial Park.

2.0 REGIONAL CONTEXT

Rushing River Provincial Park is administered by the Kenora District of the Ministry of Natural Resources. The park is situated along Highway 71, within the townships of LeMay and Kirkup, approximately 20 kilometres southeast of the Town of Kenora and 5 kilometres south of the intersection of Highways 17 and 71 (Figure 1).

The area around the park is Crown land, with the exception of a few small parcels of patent land. Dogtooth Resort and Camp Waterfall are the nearest of the many tourist operations in the area. Approximately 35 cottages exist on Dogtooth Lake and are accessed from the Ministry of Natural Resources access point located near Dogtooth Resort, on the park's north boundary.

Kenora has a population of approximately 10,000. Other smaller communities in the region, are Sioux Narrows (population 400), Vermilion Bay (population 1,130) and Dryden (population 6,640). During the summer, the area's population grows substantially with the influx of tourists and cottagers. Cottage owners and tourists create a large market for area businesses. Kenora can provide all the amenities necessary for the park visitor, including alternative recreation opportunities.

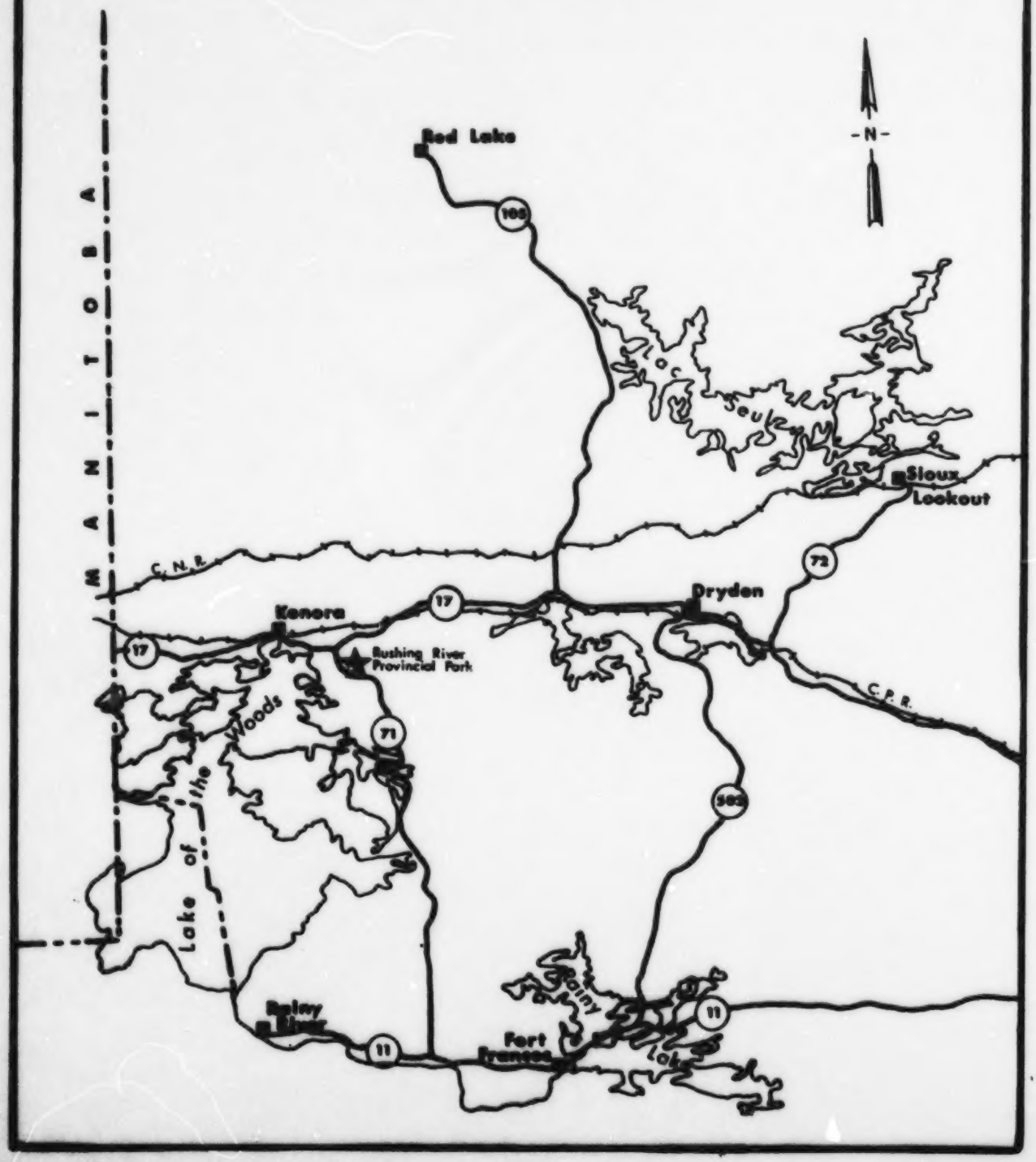
figure 1

RUSHING RIVER PROVINCIAL PARK

Regional Location

Scale 1:1,600,000

20 0 20 40 60
Kilometres



The park is in an area typical of the Canadian Shield country of northwestern Ontario, an area dominated by pine and spruce forests and inhabited by bear, moose and deer as well as numerous smaller mammals. Many different species of birds are inhabitants of the park area. These include raptors, or birds of prey like the bald eagle (Halioeetus leuepcephalus) and rough-legged hawk (Buteolagopus s. johannis), waterfowl like the common loon (Gavia immer. Subsp.) and many perching birds including pileated woodpeckers (Hylatomus pileatus), warblers and cedar waxwings (Bombycilla cedrorum).

3.0 PLANNING AREA: LAND TENURE

Rushing River Provincial Park was established in 1958 at a size of 190 hectares. A proposed boundary expansion would increase the size of the park by 96 hectares, to a total of 286 hectares. All of the land considered for inclusion in the park is Crown land and is not part of any timber company's allowable cut, as the proposed additions are excluded from the Boise Cascade Lake of the Woods F.M.A. There is no patent land within the present park boundary.

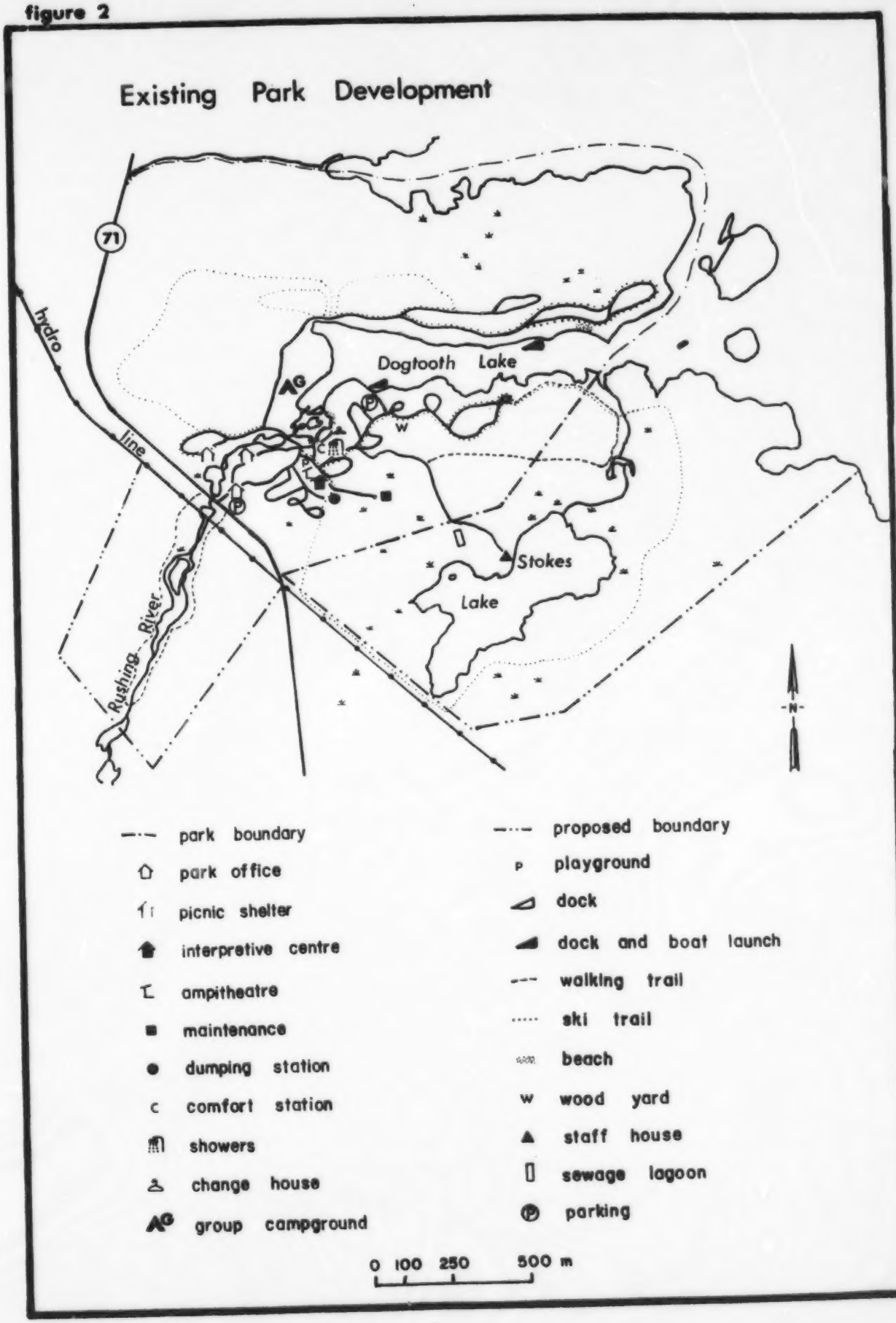
In 1934 when constuction of Highway 71 began, 11 acres of land, comprised of the present day use area of the park, was put under the jurisdiction of the Department of Highways for the recreational use of the men constructing the highway. In June of 1957, a total of 365 acres, including the previous 11, were set aside with the idea that the land would be used as a provincial park. In May 1958 another 29.5 acres was added and on September 25, 1958 the park came into regulation at its present size of 469 acres. Rushing River is presently classified as a recreation class provincial park. The park is bounded on the north by the Dogtooth Lake Road, on the west by Highway 17, on the south by a line running northeast from Highway 71 and by Dogtooth Lake (Figure 2).

The park is in a scenic location. The rapids of Rushing River offer a pleasant backdrop to the day use area. The bay of Dogtooth Lake bisecting the park separates two of the campground areas and provides waterfront for both. Although the park is well developed, nature trails offer good opportunities for extensive, quiet recreation. A variety of wildlife may be seen while walking in the park especially on the Lower Rapids Trail.

4.0 EXISTING PARK DEVELOPMENT

Rushing River Provincial Park is well developed with a large day use area, boat launching and docking facilities, three campground areas, interpretive facilities and a group camping area. Most of the development occurs along the shore of Dogtooth Lake and along Rushing River (Figure 2). Of the park's 191 campsites, 38 are electrical, 10 of which are pull through sites for large trailers, and there are a total of 47 sites operated on the reservation system. Campground facilities include a comfort station and a separate shower building with solar heated water, located on the park's south side. There are also vault toilets and water taps located throughout the campgrounds. Beginning in 1986 there will be only one woodyard operating under a concession agreement in the park. The day use areas are divided by Rushing River with each having a picnic shelter, picnic tables and barbecues. Day use parking is available for about 80 vehicles. The day use areas are used to capacity on sunny summer weekends. Of the three beaches in the park one beach is available for day users, while the two others are for campers only. A children's play area is located near the ampitheatre and is accessible to both day users and those campers in the south campground.

figure 2


Existing Park Development
71
hydro line
Dogtooth Lake
AG
P
W
C
Stokes Lake
Rushing River
N
park boundary
park office
picnic shelter
interpretive centre
ampitheatre
maintenance
dumping station
comfort station
showers
change house
group campground
proposed boundary
playground
dock
dock and boat launch
walking trail
ski trail
beach
wood yard
staff house
sewage lagoon
parking
0 100 250 500 m

An outdoor ampitheatre, self-guiding trails and a museum comprise the interpretive facilities. The museum houses a variety of displays which portray the biophysical and cultural resources of the park. There are a number of mounted mammal and bird specimens in the museum, including a full size black bear. The park's trail system consists of two hiking trails, each about two kilometres in length and in winter seven groomed cross-country ski trails, totaling about 20 kilometres. Some of this trail network runs outside the present park boundary. There is also the opportunity to take a variety of canoe routes (on Dogtooth, Kilvert and Hawk Lakes) starting from and terminating at the park.

Maintenance and operating facilities include a variety of buildings, a pressure water system with water supplied from Dogtooth Lake and a sewage lagoon located south of the park boundary equipped with a spray irrigation system. A staff house located on the shore of Stokes Lake provides accommodation for park employees. All park facilities are mapped on Figure 2.

5.0 RESOURCE INVENTORY

5.1 Climate

The climate of the park area is modified continental, characterized by long cold winters and short warm summers. The mean annual temperature is 2° Celsius while the mean daily maximum for July is 25.5°C and the mean daily minimum for January is -22.2°C. Mean annual precipitation for the area is 66 centimetres, which is concentrated in the summer. The average annual snowfall of 152.4 centimetres leaves an average maximum snowdepth of about 55 centimetres. There may be a great variation in the amount of precipitation from year to year.

5.2 Earth Science Features

Rushing River Provincial Park is located on the Canadian Shield. The park's geology and geomorphology (Figure 3) is typical of much of the shield and is characterized by moderately broken granitic bedrock. Bedrock outcrops with a thin to non-existent soil cover are the dominant geomorphological feature in the park.

5.2.1 Geology

The bedrock in the park is pink to grey granite of

figure 3

RUSHING RIVER PROVINCIAL PARK

Geological Units

a Bedrock Outcrops

b Ground Moraine

c Wetlands

sand beach

boulders

striae

foliation

Scale 1:12,472

early Precambrian age. Often evident are intrusions or dikes which follow fractures in the granite. Dikes vary from 2 centimetres to .5 metres in width and run in various directions. Movement of the earth's surface has caused many of these dikes to be offset; they do not run in straight lines. The day use beach area has good bedrock exposures where these characteristics can be clearly seen.

The bedrock was scraped clean and rounded off during the last Wisconsin ice advance, between 10,000 and 12,000 years ago. In some places, the ice marked the rock, describing the glacier's passing. These markings, called glacial striae, appear as fine parallel scratches along the rock surface. Within the park, they usually run towards the southwest, indicating that the glacier entered the park from the northeast. As well, glacial plucking is evident on exposed bedrock. Plucking occured when the glacier passed over the bedrock, scraping the surface smooth, and removing pieces of rock from the lee side of the outcrop. As a result, many of the rock exposures in the park have a smooth, gently sloping rounded surface on the northeast face, and a sharp, rough cut on the southwest face.

5.2.2 Geomorphology

Besides removing surface material, some glacial till was deposited as the glacier moved over the earth's

surface. Most of this till is in very thin deposits on southwest slopes and is characterized by a silty sand content with a high proportion of stones. Boulders of local origin have also been left by the glacier.

Small bogs occupy many of the depressions in the bedrock. Some of these are surrounded by ridges of bedrock, while around others, the bedrock just rises to the surface. The bogs are underlain by deep deposits of clay, and are peat-filled. None of the bogs within the park have open water. However, the marsh system around Stokes Lake, south of the park, is a good example of the early stages of bog development; the infilling of the lake's bays illustrates an ongoing geomorphic process.

Small deposits of sand and silt occur in many of the small bays along the shoreline of Dogtooth Lake. The present beaches in the park are man-made, although small original beach deposits probably occur beneath the present day beaches.

Dogtooth Lake has a total surface area of over 2,700 hectares and Rushing River Provincial Park is located at the southwest outlet of the lake. The lake has a maximum depth of 42 metres and an average depth of 10 metres. It is surrounded by bare granite ridges, most of which have even less soil cover than occurs in the park.

5.3 Life Science Features

5.3.1 Vegetation

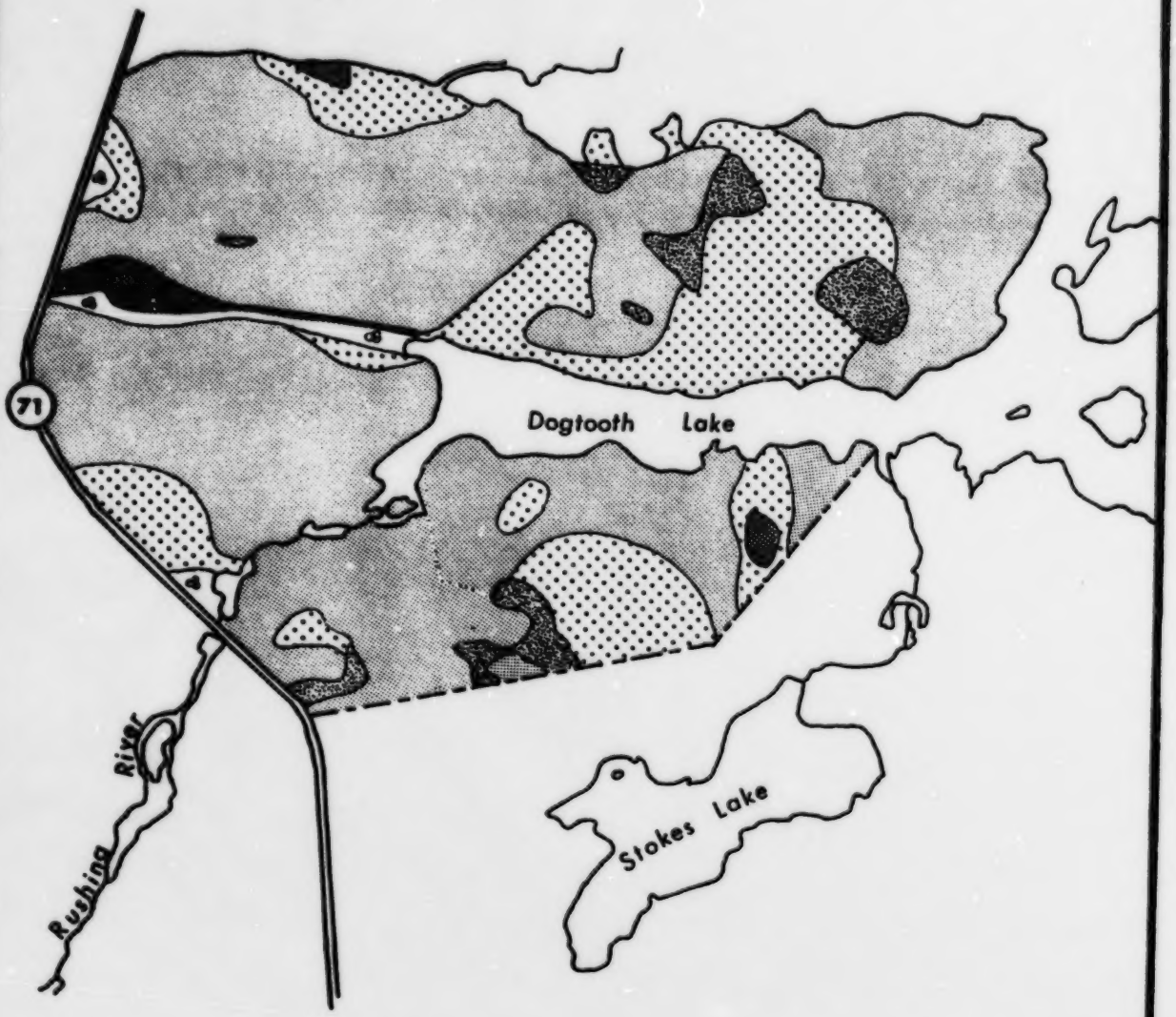
Rushing River Provincial Park lies in the Northern Transition zone of the Great Lakes - St. Lawrence and Boreal forests. It is an excellent example of the integration of the two forests. Although the park is predominantly boreal, many species of the southern forest grow in the park. The Pine Ridge Nature Study Area contains some of these plants including smooth sumac (Rhus glabra), poison ivy (Rhus radicans), rough-leaved dogwood (Cornus rugosa) and chokeberry (Aronia melanocarpa). There is a scattering of both red pine (Pinus resinosa) and white pine (Pinus strobus) in the park. Red pine are common in the day use area although both of these species are near their northern limits in this region.

The park is dominated by a community of jackpine (Pinus banksiana) and juniper (Juniperus communis) on the bedrock controlled uplands (Figure 4). This community has very little soil cover, is very dry, and therefore, is susceptible to fire during periods of low precipitation and high temperatures. The bedrock is covered with lichen, and moss grows in some areas. In general there is no undergrowth other than the juniper shrubs on these sites. The jackpine community developed after a fire which burned through the area around 1912.

figure 4

RUSHING RIVER PROVINCIAL PARK

Vegetation



Jackpine

Mixed – Aspen dominant

Black spruce

Bog

Wetland

Scale 1:12,472

approx. 1cm. to 125m.

The bogs in the park, found between the bedrock ridges, exhibit the typical bog species of leatherleaf (Chamaedaphne calyculata), labrador tea (Ledum groenlandicum) and sphagnum moss (Sphagnum spp.) which form the surface cover. Alder (Alnus spp.) and willow (Salix spp.) have invaded the periphery of some of the bogs, while one bog has been completely colonized by black spruce (Picea mariana). Because of the high moisture content and the nature of sphagnum, the bogs feel spongy when walked on.

Where glacial till was deposited on southwest slopes and in low lying areas other plant communities have developed. These till slopes are dry, and have a tree canopy of pine and aspen with some brush undergrowth and a variety of herbaceous plants covering the forest floor. On lower lying, wetter sites, undergrowth is much denser, and a cool microclimate exists, which is in marked contrast to the hot, dry conditions of the jackpine community.

A small marsh occurs at the pool below the rapids on Rushing River. Here, cattails (Typha latifolia), horsetails (Equisetum spp.) and sedges (Carex lasiocarpa) surround and invade the pool. Stokes Lake has a large enough marsh environment to attract waterfowl such as the loons which nest on the lake. More examples of a marsh community exist on Rushing River downstream of the park boundary.

5.3.2. Fauna

Dogtooth Lake has a varied fishery of yellow pickerel (*Stizostedion vitreum vitreum*), northern pike (*Esox lucius*), smallmouth bass (*Micropterus dolomieui*), whitefish (*Coregonus clupeaformis*) and a dwindling population of lake trout (*Salvelinus namaycush*) inhabiting its waters. In the spring of 1985, splake (*Salvelinus namaycush* x *Salvelinus fontinalis*) were planted in the lake on an experimental basis. Projects to improve pickerel spawning grounds have also been carried out on some shoal areas in Dogtooth Lake recently. Evidence indicates that these improved spawning grounds are being utilized by the lake's pickerel population. One commercial fishery licensed for whitefish and northern pike operates on the lake. This fishery only operates from October 15 to April 15.

There is a variety of wildlife species in the park area, most of which can be seen at some time. These range from large mammals such as the black bear (*Ursus americanus*) and white-tailed deer (*Odocoileus virginianus*) to the small pesky but amusing squirrels and chipmunks which are a familiar sight within the campground. A variety of perching birds, waterfowl and raptors, such as hawks and owls inhabit the park or surrounding area. The territory of some of these species extends outside the park boundary.

The park is significant from a life science viewpoint because it is in the transition between two forest zones, and the prairies are near enough that species common in the west inhabit the park. The least chipmunk (Eutamias minimus) native to western Canada, is an example of this phenomenum. It inhabits the park, along with the eastern chipmunk (Tamias striatus).

5.4 Cultural Resources

Dogtooth Lake and Rushing River were used by natives and later by voyageurs as part of a transportation route from Eagle Lake and Lac Seul to Lake of the Woods. The park area was probably used as a stopover or rest spot before the portage around the rapids on Rushing River. Later when the C.P.R. was being constructed, between 1877 and 1885, Dogtooth Lake and Rushing River were used in the transport of tamarack logs which were used for railway ties. The logs were cut around the shore of Dogtooth Lake, floated down Rushing River into Lake of the Woods, and then were tied together in booms, to be moved north to Kenora (Rat Portage at the time).

During the construction of Highway 71, an office and accommodation building was built for the construction

crew. That building is the present park museum. It was constructed of round logs, by the Department of Highways in 1935, and is still in sound condition.

6.0 MARKET ANALYSIS

Rushing River Provincial Park is a very popular recreation class park which is heavily used during July and August. During the past ten years the park has been filled to between 80% and 90% of capacity during this two month period. During July-August of 1984, it was at 90% occupancy - the fourth highest occupancy rate in the province. In 1985 campground use was at 98% capacity in July but dropped to an average occupancy rate of 80% for July and August. Low use in late August was a result of poor weather. In 1985 there were approximately 54,000 visitors to Rushing River Provincial Park, over 15,000 of whom were campers. The day use area is usually full on summer weekends and use is often high through the week as well. Although intensively used during July and August, the campground receives low use during the rest of the season.

About 60% of the park's users are family groups with over 60% of the park's total users coming from Manitoba. The park is the main destination for many visitors who come to Rushing River for their annual summer vacation and stay an average of four to seven days. Other major users are Ontario residents and Americans who often use the park as a stop over on travels through the area. (Data from 1983 Park User Survey).

Visitors to the park participate in a wide range of activities, including swimming, fishing, walking and attending the park interpretive programs.

Winter use of the park is dominated by cross-country skiers who use the seven groomed trails at the park. Use of these trails can be very heavy with the degree of use fluctuating with weather and snow conditions. During a week of good weather over 200 skiers may use the trails.

Alternative campgrounds for visitors who find Rushing River full are Sioux Narrows and Blue Lake Provincial Parks and the many privately operated campgrounds in the immediate the area.

7.0 CONSTRAINTS AND CAPABILITY ANALYSIS

Constraints to development and the ability of the park environment to support use without the environment being damaged, must be considered in the planning and management of the park. By dividing the park into units, according to certain biophysical criteria, and then determining the constraints and the capability for each unit, decisions about park development and preservation can be made more successfully. The criteria considered in dividing the park are soil depth, drainage, vegetation and relief. Using these criteria the park was divided into four constraint or land units (Figure 5).

Unit 1 Bedrock Controlled Uplands

This unit is characterized by moderately broken topography, frequent bedrock outcrops, very thin soil cover, very good drainage and a vegetation community of jackpine and juniper shrubs. Unit 1 is the largest unit occuring in the park. This unit is highly susceptible to the loss of the fragile litter layer and soil cover from more than minimal use. The loss of the vegetation cover and soil erosion are evident in the campground on well used campsites. Heavy use on trials through this unit has also caused soil compaction, and the loss of moss and lichen cover on the bedrock

figure 5

RUSHING RIVER PROVINCIAL PARK

Constraint Units

1 Bedrock Controlled Uplands

2 Bogs

3 Low Lying Aspen Communities

4 Ground Moraine

Scale 1:12,472

approx. 1cm. to 125m.

outcrops. With extensive planning, site design and maintenance some undeveloped parts of this unit may be able to support expanded use and development.

Unit 2 Bogs

All bogs within the park are similar, except for one, which has been completely covered by black spruce. None of the bogs are especially large. Bogs are very sensitive to disturbance. Their high moisture content, poor drainage and high organic content make the peat and underlying clay layers susceptible to compaction. As a result bogs are not suitable for development. They can provide excellent opportunities for interpretation, as long as care is taken to minimize the impact of use.

Unit 3 Low-lying Aspen Communities

Unit 3 exhibits little relief but is often surrounded by bedrock ridges. This unit has relatively deep soils with poor drainage. Individual areas of this unit are small. The dominant tree species is trembling aspen, but a mix of other tree species occurs and undergrowth is dense. This unit is moderately sensitive to development. Constraints include the poor drainage of the unit, and this unit often borders other wetlands, or is surrounded by steeply sloping bedrock ridges, which limit the area available for development.

Unit 4 Ground Moraine

This unit is characterized by gentle slopes, soils of moderate depth over till with good drainage and a mixed forest cover. The unit would present few constraints to campground development, however the sandy nature of the soil makes the site susceptible to erosion. Through erosion, exposure and damage to tree roots occurs, as is evident in the day use area. Undisturbed parts of this unit are unattractive locations for campers, because they are inland from the lake, and do not have the water access and scenic beauty that most campers prefer.

In summary, the park does not have good capability for intensive recreational development. The major constraint to development is the very thin sandy soil which is quickly eroded from the granite bedrock. Deterioration is severe in parts of the campground because of the sensitivity of the park environment to heavy use. Thin soil cover, poor drainage, susceptibility to erosion and soil compaction, and steep slopes are constraints which deter development and limit the capability of the park to withstand intense use.

8.0 ISSUES

This section identifies issues which are of concern to Ministry staff and which may be of concern to the public. More issues will probably be identified as the public makes their concerns known to the Ministry. These issues will be addressed during the planning process and resolved by the park management plan.

The specific objectives concerning the provision of recreation opportunities, development and the protection of the park's natural environment for Rushing River Provincial Park must be determined. These objectives will be defined within the framework of provincial park policy. A balance between the provision of recreation opportunities and maintenance of the park environment must be accomplished through the objectives.

Park zoning will be determined by present use, proposed development, environmental capabilities and constraints and the natural and cultural significance of the park features. Each zone will have a specific intent to either provide facility-oriented recreation, extensive recreation opportunities or to protect a natural feature.

The proposal to expand the park boundary to include Stokes Lake and part of Rushing River downstream of Highway 71 must be considered.

Heavy use in July and August and the resulting deterioration of parts of the campground due to intense use on sensitive sites, has to be addressed. Although there appears to be a need for more campsites in July and August, the construction of more campsites would only increase the disparity of use over the length of the season. A strategy for marketing the park to attract visitors during low-use periods should be developed to decrease the irregularity of use through the season.

The sensitivity of the park environment must be considered in any park development.

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